



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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May 10, 2001

CERTIFIED RETURN RECEIPT
7000 0520 0021 7582 9156

Michael Pauletto
Interstate Rock Quarries
22310 NE Hillside Drive
Vancouver, Washington 98682

Re: Initial Review of Notice of Intention to Commence Large Mining Operations, Interstate Rock Quarries, Clarks Basin Mine, M/003/055, Box Elder County, Utah

Dear Mr. Pauletto:

The Division has completed a review of your draft Notice of Intention to Commence Large Mining Operations for the mine, located in Box Elder County, Utah, which was received December 15, 2000. After reviewing the information, the Division has the following comments which will need to be addressed before tentative approval may be granted. The comments are listed below under the applicable Minerals Rule heading. Please format your response in a similar fashion. Please provide a response to this review by June 25, 2001.

The Division will suspend further review of the mine Notice until your response to this letter is received. If you have any questions in this regard please contact me, Doug Jensen, Lynn Kunzler, or Tom Munson, of the Minerals Staff. If you wish to arrange a meeting to sit down and discuss this review, please contact us at your earliest convenience. Thank you for your cooperation in completing this permitting action.

Sincerely,

D. Wayne Hedberg
Permit Supervisor
Minerals Regulatory Program

jb
Attachment: Review
cc: Carmella Romerio, USFS
M03-55.rvw

REVIEW OF NOTICE OF INTENTION TO COMMENCE LARGE MINING OPERATIONS

Interstate Rock Quarries Clarks Basin Mine

M/003/055
(May 10, 2001)

R647-4-104 - Operator's, Surface and Mineral Ownership

Your Notice indicates ownership of the minerals is "Fee." Please note that the mineral ownership is "Federal." Please provide information regarding the claimant(s) of the mineral and if other than yourself, that you have an appropriate lease or agreement with the claimant(s) to remove the rock. (LK)

Please include a map showing adjacent land and mineral ownership. (DJ)

R647-4-105 - Maps, Drawings & Photographs

105.2 Surface facilities map.

Measurement of the proposed surface disturbance outlined on the Surface Disturbance map indicates that the total area to be disturbed and reclaimed is approximately 79.2 acres. The Notice indicates that the total disturbed area to be 41.5 acres. Please explain the difference and adjust this map to identify the correct disturbed area acreage. (DJ)

The Notice indicates that Interstate Rock will construct 2 miles of new road, 2 miles of Forest Service road and upgrade approximately 2 miles of road through Bert Kunzler's property. Unless an agreement is reached with the owners of these existing roads, the upgraded roads will need to be reclaimed back to the original state. Access roads to the project are projected to be twelve feet in width. Field measurements of the roads already improved by Interstate Rock indicate the roads to be an average of eighteen feet in width. Please be aware that the width of a road is calculated from the amount of area affected by any road construction. Some of these roads will be side-cast roads, this type of road construction can double the affected area of this feature. This notice shows only 1.5 acres of new access roads (approximately 2 miles in length) associated with these quarries. This would create a road about 6 feet wide. A preliminary calculation shows that it is possible that 4 to 6 acres could be assigned to the new access roads. (DJ)

Pull-outs are scheduled to be constructed on the access road. What is the length and width of these pull-outs? Will there only be the two pull-outs, as shown on the map sent with the Notice? If not how many will there be and where will they be located? Please revise the map accordingly. (DJ)

The Notice states that access to the site is authorized under CFR 228.12. This may be correct when Forest Service property is involved. The Forest Service cannot authorize access to your site through private property. Permission must be received from Mr. Kunzler before access can be planned or any road work can take place on his property. (DJ)

Please submit a mine plan for each quarry showing the mining sequence (acreage to be disturbed/reclaimed annually) for a minimum period of at least five years. (DJ)

Note, as part of the E.A. for this area, the Forest Service is looking at the access road alignment. It may be necessary to relocate portions of the proposed access, which may eliminate some of the previous road comments under this section. (LK)

105.3 Drawings or Cross Sections (slopes, roads, pads, etc.)

Please provide cross-sections of affected areas showing the present ground surface, the surface after the proposed mining and after final reclamation. Provide at least two cross-sections, one running north-south and one running east-west, through each quarry. These sections should be 1"=100' or larger. These cross-sections will be used for calculation of reclamation requirements and cost estimating. (DJ)

Several cross-sections showing typical road construction design and reclamation contours should also be submitted. (DJ)

R647-4-106 - Operation Plan

106.2 Type of operations conducted, mining method, processing, etc.

The equipment list indicates a crusher at each site. Will all three of these crushers be <150 ton/hour? (DJ)

The Notice states that suitable material will be screened to produce fines. The equipment listed does not include any screening equipment. Where will this screen be located? Will there be more than one screen plant at the site? Will material be hauled from other quarries to a central location for screening? (DJ)

An air quality approval order is probably needed for your operation. Please contact the Division of Air Quality for requirements regarding an air quality permit for your operation. Please reference the air quality permit, or provide a letter from the Division of Air Quality that states that a permit is not required. (LK)

106.3 Estimated acreages disturbed, reclaimed, annually.

Please provide a map indicating acreages that will be disturbed and reclaimed annually. (DJ)

106.4 Nature of materials mined, waste and estimated tonnages.

The Notice states that the mine will operate for 30 years at the planned production. What is the planned production from each pit annually? (DJ)

What is the estimated amount of rock product and waste for each pit that will be generated each year? (DJ)

106.5 Existing soil types, location, amount

Please provide a description of the soil type(s) that will be affected/disturbed by this operation. Include the soil type names, a map showing the location of each soil type, and the average depth of each soil type. Most of this information should be available through the Natural Resources Conservation Service in Tremonton, Utah. In addition to the general soil description, each soil type (including any substitute plant growth materials proposed to be used for reclamation) will need to be analyzed for the following parameters: texture, pH, EC (conductivity), SAR, %OM (percent organic matter), CEC (cation exchange capacity), total nitrogen, nitrate nitrogen, phosphorus (as P_2O_5), and potassium (as K_2O). Soil samples will need to be submitted to a qualified soils lab for this analysis. (LK)

Please provide an estimate of the volume of soil or substitute plant growth material that will be stored in each topsoil stockpile. (LK)

106.6 Plan for protecting & redepositing soils

Please describe how soil stockpiles will be protected from erosion and other impacts. Examples may include signing, berms, seeding, etc. How will soil materials be redeposited over the disturbed areas upon reclamation? At what average thickness (inches) will the soil be replaced? (LK)

106.7 Existing vegetation - species and amount

Please provide the results of a vegetation survey, identifying each vegetation type that will be disturbed. At a minimum, this survey needs to include a list of the species present and the percent ground cover (aerial projection) for each vegetation type. (LK)

106.8 Depth to groundwater, extent of overburden, geology

Please provide a description of the geology of the area. What is the thickness of the overburden, what is the thickness of the mineral deposit (quartzite) that will be quarried? What are the geologic formation names? (LK)

It appears from the drawings that the springs in the area will need to be surveyed in terms of elevation and geologic occurrence to determine the depth of groundwater in the area. Please provide more detailed geologic information related to the geologic formation from which these springs issue, and the potential for impacts to the springs and recharge areas. (TM)

106.9 Location & size of ore, waste, tailings, ponds

Please provide an estimate of the volume of material that will be placed in each overburden/waste pile. (LK)

The plan indicates the use of ponds or pits to impound water from runoff and process water in order that it does not leave the site during operations. Upon reclamation, the pits are proposed to act as impoundments. The location and size of these catchment basins or impoundments will need to be described in better detail regarding their size and the quantity of impounded water. These impoundments must be approved by the Land Managing Agency in order to be considered an appropriate post mining land use. (TM)

R647-4-107 - Operation Practices

107.1 Public safety & welfare

107.1.14 Posting warning signs

If blasting is being contemplated, even on an intermittent basis, warning signs should be placed at the site informing the public of this eventuality. (DJ)

Please describe the safety program that will be followed to warn the public of impending blasts. This needs to include both 'warning' and 'all clear' signals. This information needs to be posted on signs on all access roads to the area (see attached example). (LK)

107.1.15 Constructing berms, fences, etc. above highwalls

The notice states the berms will be placed above highwalls. Is the additional area affected by this construction reflected in the total acreage? (DJ)

107.3 Erosion control & sediment control

The operator has stated that he will use straw bales or silt fences to control sediment from operational areas or roads. The Division's opinion is that these items are maintenance intensive. They will need to be inspected regularly and maintained to assure their effectiveness. The establishment of a temporary vegetation cover, or the use of catchment basins or surface roughness would be a better means of controlling sediment on road outcrops or other areas that are not being constantly impacted. Any operational sediment ponds must be designed so they can be cleaned easily. Attached are examples of a small sediment pond design and other erosion control methods you can implement. (TM)

107.5 Suitable soils removed & stored

Prior to disturbance, all suitable soil materials will need to be salvaged and stockpiled for later use in reclamation. Please refer to comments under R647-4-106.5 and 106.6. (LK)

107.6 Concurrent reclamation

Bonding requirements could be reduced if areas no longer needed for the operations could be reclaimed prior to the closure of the quarries. (DJ)

R647-4-109 - Impact Assessment

109.1 Impacts to surface & groundwater systems

It is apparent that there are many springs and wet areas surrounding the mine. A better assessment of the geology and occurrence of springs is required to determine the potential impacts to the surface and groundwater systems. (TM)

109.2 Impacts to threatened & endangered wildlife/habitat

The Canada Lynx was listed as 'threatened' by the U.S. Fish and Wildlife Service. Critical habitat has been designated, which includes the location of your proposed operations. You will need to obtain a clearance for your operation that it will not further impact this species. This is being coordinated with the U.S. Forest Service as part of their NEPA process. (LK)

109.3 Impacts on existing soils resources

Please refer to comments under R647-4-106.5 and 106.6) (LK)

109.4 Slope stability, erosion control, air quality, safety

You will need to contact the Utah Division of Air Quality (Dept. of Environmental Quality) to obtain an Air Quality Approval Order before you operate the proposed crusher(s). (LK)

R647-4-110 - Reclamation Plan

110.1 Concurrent & post mining land use

Please describe the principle land use(s) of the area (e.g. grazing, wildlife habitat, etc.), and the primary land use(s) following reclamation. This will need to be coordinated with the Forest Service. (LK)

110.2 Roads, highwalls, slopes, drainages, pits, etc., reclaimed

Please provide a reclamation treatments map showing which areas of each site that will receive different reclamation treatments. Please shade, cross-hatch or color code to identify the different reclamation treatments that will be applied. Reclamation treatments may include ripping, regrading, replacing soil at different depths, fertilizing/mulching, drill or broadcast seeding, etc. (DJ)

110.3 Description of facilities to be left (post mining use)

The Notice indicates that no facilities will be left. All facilities will be removed and all disturbances will be reclaimed. (LK)

110.5 Revegetation planting program

Please provide a detailed revegetation plan. At a minimum, the plan needs to include: depth of topsoil replacement (or other suitable plant growth medium), seedbed preparation, fertilizer or other amendments (including type(s) and application rate(s)), seed mix (by species), seeding rates, seeding method(s), and timing of revegetation. If different areas will receive different treatments or application rates, these areas need to be identified on the reclamation map. Attached is a copy of the seed mix that was approved for the adjacent Dove Creek Quarry. If this seed mix is acceptable, please so indicate in your response. Otherwise, please provide a seed mix which is expected to meet post mining reclamation goals. The Division can assist in recommending appropriate fertilizers and amendments. However, the soil analysis requested under R647-4-106.5 needs to be provided first. (LK)

R647-4-111 - Reclamation Practices

111.2 Reclamation of natural channels

The plan talks about filling in Riparian areas and the upper reaches of drainages. Please show where these areas are and how reclamation will restore these drainages. (TM)

111.3 Erosion & sediment control

Please provide a statement that all disturbed areas will be revegetated following the conclusion of mining and the reclaimed surface left in a roughened condition to prevent erosion and sediment from leaving reclaimed areas. (TM)

111.5 Land capable of post mining land use

This section cannot be analyzed until the information requested under R647-4-110 is submitted and reviewed. (LK)

111.7 Highwalls stabilized at 45 degrees or less

The plan states that highwalls will be blasted to reduce the slope at the end of mine life. Please provide a plan on how this will be accomplished. (DJ)

111.9 Dams & impoundments left self draining & stable

A variance must be requested to leave impoundments or features that will impound water. Pits or other impounding structures left following mining must be free draining and stable. These features must also be considered beneficial to the post mining land use by the Land Managing Agency. The variance rules are found under R645-4-112. (TM)

111.12 Topsoil redistribution

Please refer to comments under R647-4-106-5 and 106.6. (LK)

R647-4-112 - Variance

No requests for variances have been made at this time.

R647-4-113 - Surety

A surety calculation cannot be made until operational questions addressed above have been answered. (DJ)

R647-4-115 - Confidential Information

No confidential information was included with the Notice.

Attachments: Seedmix, Blasting Protocol example, sediment control examples

Recommended Revegetation Species List
for

Interstate Rock Quarries
Clark's Basin Mine
M/003/055

Prepared by DOGM March 6, 2001
(this mix is acceptable to the USFS)

<u>Common Name</u>	<u>Species Name</u>	<u>*Rate lbs/ac (PLS)</u>
Thickspike wheatgrass	<i>Agropyron dasystachum</i>	2.0
Bluebunch wheatgrass	<i>Agropyron spicatum</i>	2.0
Intermediate wheatgrass	<i>Agropyron intermedium</i>	1.0
'Piute' orchard grass	<i>Dactylis glomerata</i>	0.5
Basin wildrye	<i>Elymus cinereus</i>	2.0
Ladak Alfalfa	<i>Medicago sativa</i>	1.0
Yellow sweetclover	<i>Melilotus officinalis</i>	0.5
Rocky mountain penstemon	<i>Penstemon strictus</i>	0.5
Small burnet	<i>Sanguisorba minor</i>	1.5
Black sagebrush	<i>Artemisia nova</i>	0.1
Wyoming big sagebrush	<i>Artemisia tridentata wyomingensis</i>	0.1
Serviceberry	<i>Amelanchier alnifolia</i>	1.0
Forage kochia	<i>Kochia prostrata</i>	0.5
Bitterbrush	<i>Purshia tridentata</i>	1.0
Total		13.7 lbs/ac

*This the recommended broadcast seeding rate.

Blasting Protocol Example

1. A siren located on site will warn the public of pending blast
 - A. 20 minutes prior to blasting, the siren will sound 2 times for 3-5 seconds with a 3-5 second interval between each warning.
 - B. 10 minutes prior to blasting, the siren will sound 3 times for 3-5 seconds with a 3-5 second interval between each warning.
 - C. Immediately prior to blasting, the siren will sound for 15 seconds, with the blast occurring at the end of the signal.
 - D. As soon as the area is checked and considered safe, the siren will sound for 5 quick bursts to signal 'all clear'
2. Blasting will only be done between the hours of 10:00 am and 2:00 pm.
3. No blasting will be done on weekends or major holidays.
4. A certified blaster will do all blasting.
5. Blasting protocol will be posted on a sign at all entrances to the property. Sign will be of sufficient size to allow a minimum of 1-inch lettering.

Note: If blasting area is near public road, flagmen should be used to stop traffic during the blast.